



Cuttwood LLC

Presentation to the Office of Management and Budget

December 3, 2015





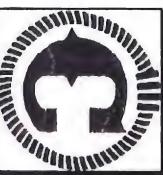
Limited Presentation Purpose, Use and Access

Limited Presentation Purpose and Audience

- The following is a presentation (the "Presentation") made by Cuttwood LLC ("Cuttwood") to the Office of Management and Budget ("OMB"), and is not intended for any other audience.
- The limited purpose of the Presentation is to provide the OMB with estimates, observations and perspectives that the OMB, in its sole consideration, may find useful in evaluating the potential economic impact of e-cigarette/e-liquid regulations recently proposed by the Food and Drug Administration ("FDA").

Limitations of Use and Access

- Each person that should obtain and read this Presentation agrees to the following terms:
 - The reader understands the limited purpose and audience of the Presentation described above, and agrees that the Presentation is solely for the OMB's use and consideration.
 - The reader agrees that he/she does not acquire any informational access rights as a result of accessing and reading the Presentation.
 - The reader understands that the statements and figures contained in the Presentation reflect subjective observations, estimates, internal data and preliminary data from sources that Cuttwood believes to be reliable; however, many such statements and figures have not been independently verified (and Cuttwood is under no obligation to independently verify) and, therefore, could be inaccurate.
 - The reader agrees that Cuttwood does not assume any duties or obligations to the reader in connection with the Presentation, including, but not limited to, revising or updating the Presentation.
 - The reader agrees that the Presentation does not (and is not intended to) address any potential health claims and/or risks associated with the use of e-cigarettes, e-liquid or Cuttwood's products.
 - The reader agrees that the Presentation is not to be considered an advertising document or any other type of marketing material.
 - The reader agrees to release Cuttwood and its owner, employees, agents, and contract employees from any claim by the reader that may arise as a result of the reader using the information contained herein in a manner inconsistent with the intended use of the Presentation (as stated above).
 - The reader agrees that reproduction and distribution of this Presentation, either in whole or in part, other than by the OMB, is not allowed without Cuttwood's written consent.



Cuttwood Overview

Entrepreneurial Beginning

- Cuttwood LLC ("Cuttwood") was founded in 2014 by a young entrepreneur, Jared Unger.
- Cuttwood was formed after Mr. Unger developed an e-liquid flavor for his own personal use that satisfied his taste and helped him avoid reverting back to smoking.
- The unique and complex flavoring of Cuttwood's e-liquids, coupled with pent up (and growing) market demand for smoke-free alternatives, has driven Cuttwood's success and exponential growth.
- It is our understanding that Cuttwood is one of the top selling e-liquid brands (for the vaporizer segment of the market) in the United States and Cuttwood's products have recently started to be distributed internationally.

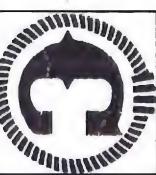
USA Operations and Sourcing

- Headquartered (and sole business location) in Irvine, California.
- Developer, marketer and supplier of branded e-liquid and related products.
- Manufacture of e-liquid is sourced from a contract manufacturer (cleanroom facility – ISO 7 standards) based in the United States.

E-Liquid & Use in Personal Vaporizers

- 5 distinct flavor blends for consumers with discriminating preferences.
- E-liquid not loaded into pre-filled e-cigarettes or cartridges – instead dripped or poured into reservoirs of 'open-system' vaporizers.





Brand & Customer Profile

Profile of Cuttwood E-liquid Consumers

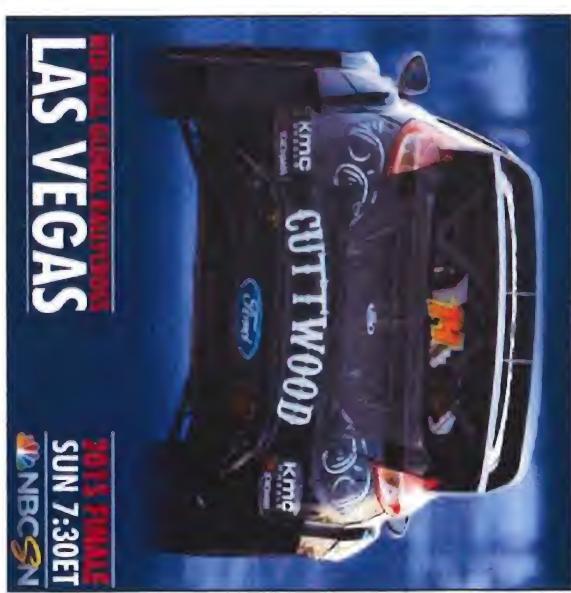
- Substantial majority fall within the range of 21 and 39 years of age.
- Predominately male, although consumption by females appears to be trending upward.
- Former smokers and those beginning the transition away from smoking.
- Active lifestyle.
- Concentration of domestic consumers is highest on the West Coast, although other parts of the country appear to be trending upward.

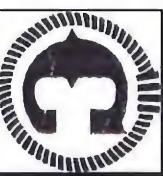
Cuttwood Brand Identity

- E-liquid for the vaporizer market.
- Staple in the vaping community, with approximately one in every three vapes shops in the U.S. carrying Cuttwood products.
- Recognized as a leader within the industry.

Reinvestment in the Brand

- Cuttwood has and continues to reinvest substantial sums into maintaining its brand identity. Such investment is in areas deemed by its consumers to be relevant and compatible with their interests.
- For example, during this past racing season, Cuttwood sponsored cars in two separate racing circuits.
- These races provide an economic benefit to the cities that host the races as a result of the hundreds of event personnel and spectators that attend each event.

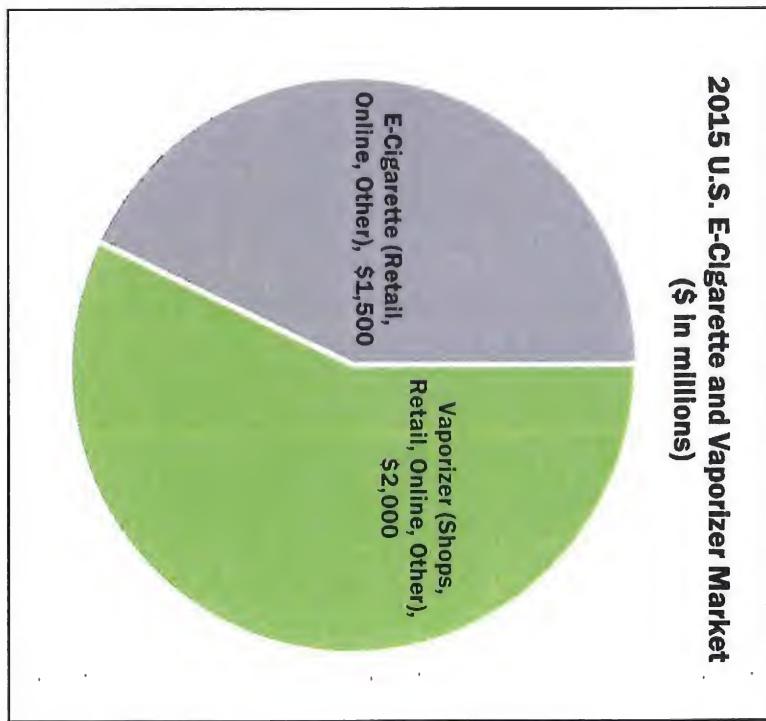
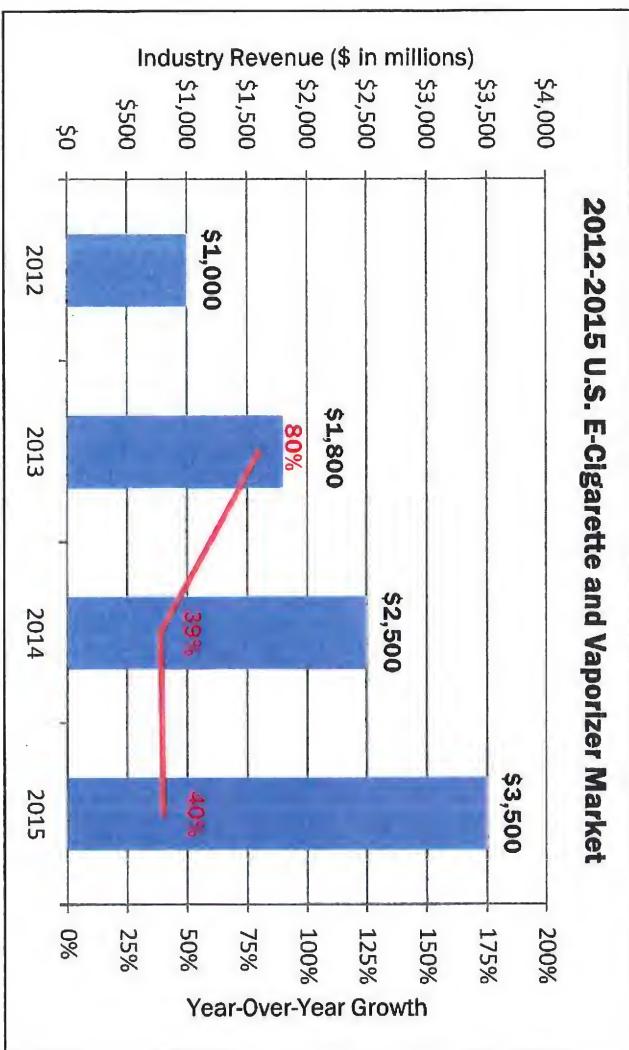




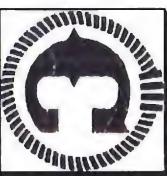
E-Cigarette and Vaporizer Industry

Large and Growing Industry

- Wells Fargo Securities estimates the size of the combined 2015 U.S. e-cigarette and vaporizer market to be \$3.5 billion, with the vaporizer segment comprising the majority of the market (\$2.0 billion) as compared to the e-cigarette segment (\$1.5 billion).
- The industry has been growing at double-digit rates each year since 2012, growing an estimated 40% in 2015.^[1]



1. Wells Fargo Securities. Reflects percentage industry growth from \$2.5B in 2014 to \$3.5B in 2015.
Presentation to the Office of Management and Budget (December 3, 2015)



E-Cigarette and Vaporizer Industry

Vaporizer Segment

- Cuttwood competes exclusively in the vaporizer segment of the market.
- Wells Fargo Securities estimates that revenues for the domestic vaporizer segment will reach \$2 billion in 2015.
- Domestic vaporizer segment is served by:
 - Approximately 8,500 vape shops;
 - Hundreds of independent distributors / sub-distributors;
 - Dozens of regionally and nationally recognized e-liquid brands;
 - Craft/local/shop-specific brands estimated to be in the hundreds;
 - Various contract manufacturers.
- Vast majority of the companies operating in this segment are privately-owned small businesses and sole proprietorships.
- Most of the companies operating in this space generate a substantial majority of their revenues from the sale of e-liquids and related products for the vaporizer segment.



E-Liquid Offering – SKU Rationalization

E-Liquid SKU Offering

- Each of Cuttwood's 5 flavor blends is offered in 6 different nicotine levels (ranging from 0 to 18mg/ml or 0% to 1.8% by volume) and in 3 different bottle sizes (16.5ml, 30ml and 120ml bottles). **This equates to a total of 90 SKUs.**



Sizes

- Cuttwood offers its e-liquid in 3 bottle sizes:

- 16.5ml
- 30ml
- 120ml

- Offering smaller bottle sizes allows Cuttwood retailers to offer their customers a full Cuttwood line up (all flavors and nicotine levels) with a much smaller investment of their limited working capital.

Flavors

- Consumers using open-system vaporizers tend to have discriminating tastes and favor non-traditional/exotic flavors of e-liquid.
- Cuttwood offers 5 distinct flavor blends that appeal to diverse consumer preferences.

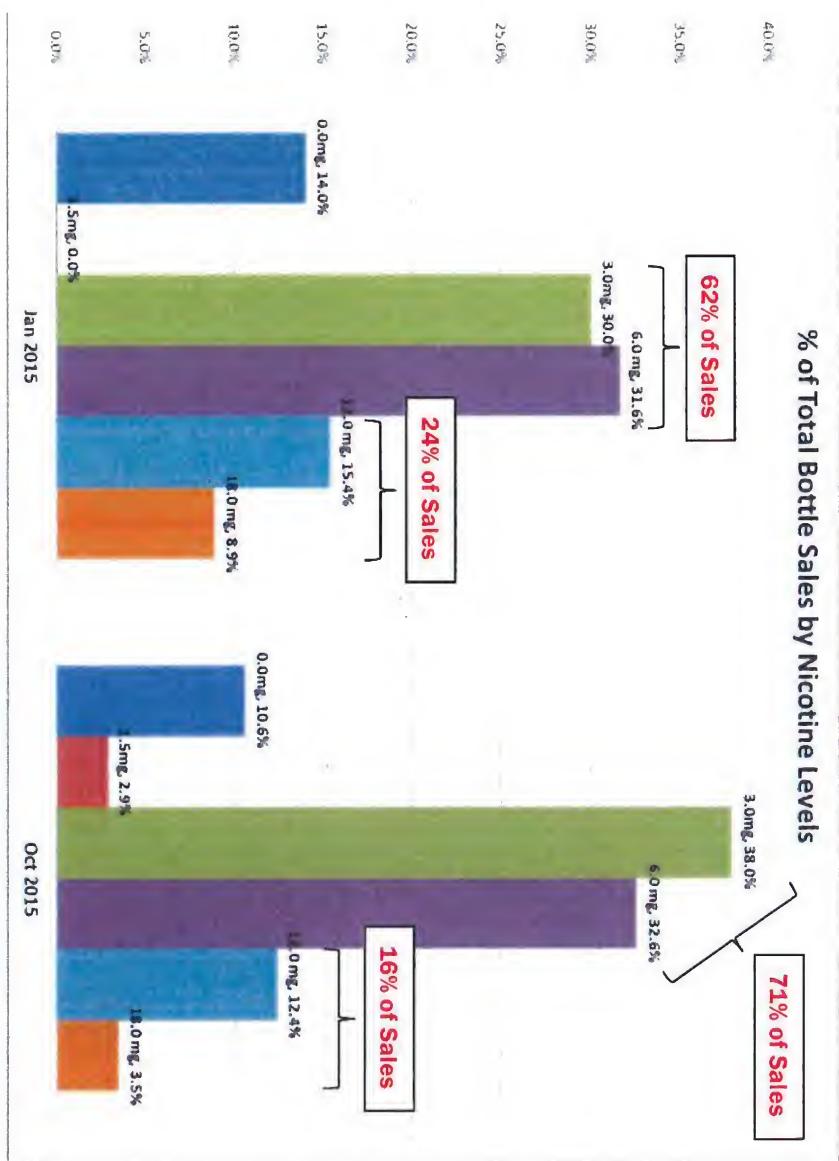




E-Liquid Offering – SKU Rationalization

E-Liquid SKU Offering

- Each of Cuttwood's 5 flavor blends is offered in 6 different nicotine levels (ranging from 0 to 18mg/ml or 0% to 1.8% by volume).



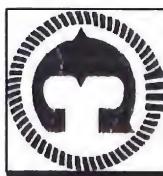
Decreasing Nicotine Level Trends

- Cuttwood has observed that many consumers that transition from smoking initially vape higher nicotine levels and gradually reduce their nicotine intake thereafter.

- Results from an internal Cuttwood survey showed that 60% of its employees that currently use vape products reported decreasing their nicotine level intake.
- The number of higher nicotine level (12mg and 18mg) bottles sold by Cuttwood as a percentage of total bottle sales has steadily decreased from 24% in January to 16% in October.

Nicotine-Free Sales

- Although some users of our nicotine-free product are vape enthusiasts who simply enjoy Cuttwood's unique flavor blends, it appears that many others are former smokers who have gradually migrated over time to our 0% nicotine product.
- Over 10% of Cuttwood's current e-liquid sales are nicotine-free.



E-Liquid Offering – SKU Rationalization

1.5mg Now Available in All Flavors and Sizes

CUTTWOOD



By Popular Demand...

Cuttwood now carries all flavors and sizes in a 1.5mg nicotine level. This level is ideal for a growing number of 3mg vapers looking to reduce their nicotine intake but not necessarily ready for 0mg. This eliminates the inconvenience of having to purchase both 0mg and 3mg, mixing them together to produce the same result.

Introduction of 1.5mg Nicotine Level SKUs

- Cuttwood recently introduced a 1.5mg nicotine level SKU for each of its flavors (in between its pre-existing 0mg and 3mg nicotine level offerings) in response to upward trends in consumer demand for lower nicotine concentration levels in e-liquid.
- Cuttwood is continuing to receive feedback from customers and consumers, but initial sales of 1.5mg product are averaging around 4% of total sales since its recent introduction.





Cuttwood Sales Network

- Cuttwood currently sells its products directly to over 1,700 independent retail locations, as well as through a network of independent distributors and sub-distributors.
- Cuttwood does not sell e-liquid products directly to consumers.

Typical Vape Store Customer Profile

- Started by entrepreneurs/small business owners who lease small retail locations.
- Many derive sole income from their stores or otherwise have a high percentage of their net worth tied up in their business, with many having taken out loans to fund operations and inventory.
- Based on a Cuttwood retail customer survey encompassing 79 stores, the retail locations that sell Cuttwood products, on average:
 - Employ 5 employees (including the store owner(s)); and
 - Derive substantially all of their revenue from e-liquid-related merchandise vs. traditional tobacco products (only 4 out of the 79 stores covered by the survey reported any traditional tobacco product sales).
- Carry multiple brands of e-liquid and have testing stations that allow consumers to try different products and engage with knowledgeable sales staff before purchasing.





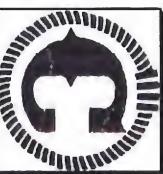
Cuttwood/Similar Company Employment Base

Employee Demographics

- A significant portion of Cuttwood's employees are comprised of young, relatively inexperienced employees that may encounter difficulty in replacing their current levels of income outside of the vape industry.
- Based on Cuttwood's industry knowledge and relationships with competing e-liquid companies, Cuttwood believes the makeup of its employee base is representative of other e-liquid brands.
- Of Cuttwood's existing pool of employees:
 - 50% are within the 18-25 age group;
 - 18% are military veterans or reservists (most were previously deployed in active combat zones);
 - Only 21% of Cuttwood's employees have a post-secondary education degree; and
 - 39% have six or less years of full-time work experience.

Favorable Compensation & Benefits Relative to Education & Experience

- Cuttwood offers its employees:
 - Subsidized medical plans;
 - On-the-job training in professional business, accounting and customer relationship management software;
 - Cuttwood-sponsored training/certification (e.g., forklift certification); and
 - Favorable compensation packages that would prove difficult for its employees to find in other industries given their ages, relatively light experience and education.
 - All employees earn wages that are higher than the California minimum wage.



Impacts of Proposed Regulations – E-Liquid Companies

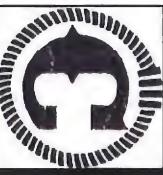
Potentially Insurmountable Testing and Product Registration Costs

- Although the costs associated with the proposed testing, registration, and approval for e-liquid products is currently unknown (proposed FDA regulations were submitted to the OMB on a confidential basis), one regulatory consulting company, SciLucent LLC, estimates that the approval process for each SKU “could cost anywhere from \$2 million to \$10 million to collect data and put forward an application for each item.”¹¹
- If the above cost estimates are even close to being accurate, the implementation of such testing and registration requirements would prove catastrophic to virtually all e-liquid companies serving the open-system vaporizer market.

Hypothetical Example

- Assuming the cost of testing, registering and obtaining approval for a single SKU = \$500,000 (a quarter of the low-end estimate put forth by SciLucent).
- Total cost to obtain approval for all of Cuttwood’s 90 SKUs would exceed the total annual revenue that Cuttwood expects to generate next year. Even a cost of \$250,000 per SKU could potentially put Cuttwood out of business or, alternatively, cause it to move off shore.
- Further, it is our understanding that Cuttwood is one of the top selling-brands of e-liquid in the domestic vaporizer market. Therefore, any regulatory requirement that would be so economically onerous as to potentially jeopardize the viability of Cuttwood would almost certainly be catastrophic for a substantial majority of the businesses operating in the industry.

1. Wall Street Journal, July 7, 2015.
Presentation to the Office of Management and Budget (December 3, 2015)



Impacts of Proposed Regulations – Industry Employment

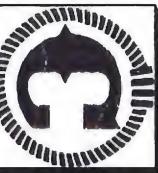
Adverse Domino Effect

- The demise of e-liquid companies catering to users of open-system vaporizers would result in a job loss “domino effect” both up and down the product chain, adversely affecting e-liquid manufacturers, as well as distributors, sub-distributors and retailers.

Retailer Footprint & Industry Jobs at Risk

- The demise of Cuttwood (and other similar e-liquid companies) would adversely impact the 1,700 retailers and a substantial network of distributors and sub-distributors that Cuttwood currently sells to directly.
- Cuttwood estimates that there are another 1,100 retailers that Cuttwood’s distributor/sub-distributor network sells Cuttwood products to.
- In total, Cuttwood estimates that its products are carried by 2,800 retail stores domestically (which represents approximately 33% of the 8,500 estimated number vape stores in the US^[1]). As previously mentioned, the substantial majority of the revenue generated by these stores comes from the sale of e-liquid-related products.
- Cuttwood estimates this would mean 42,500 jobs potentially at risk across all 8,500 vape stores alone (assuming the average vape store employs just 5 employees). The likely job loss from distributors, sub-distributors, manufacturers and other businesses catering primarily to the e-liquid industry would be additive and, likely, also in the thousands.

1. Wall Street Journal, July 7, 2015.



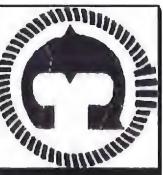
Impacts of Proposed Regulations – Consumers & Government

Adverse Effects on Federal and State Government Revenues

- The federal and state governments would likely experience a falloff in income taxes and state sales taxes.
- Further, the vape industry began in the United States and Cuttwood believes that the United States is currently a net exporter of e-liquid products. Proposed regulations could potentially drive surviving e-liquid companies offshore, thereby eliminating a growing potential source of net exports.

Market Demand Will Continue to Exist Leading to Undesirable Alternatives

- The elimination of known commercial e-liquid producers likely would not materially affect demand and, consequently, could potentially result in:
 - A reversion/increase in the rates of smoking and use of other tobacco products;
 - An “underground” industry that avoids taxation and regulation; and/or
 - A rise of ‘do-it-yourself’ e-liquid formulations for personal consumption which could pose unknown health and safety risks for both individual consumers and other household inhabitants.



Impacts of Proposed Regulations – Consumers & Government

Summary of Economic Impact

- Potential job losses (potentially as many as 55,000) for a high-risk demographic, resulting in:
 - Lower personal income tax revenues;
 - Increased governmental outlays for unemployment benefits and other social services;
- Loss of business income tax revenues and licensing fees;
- Loss of sales tax revenues;
- Increase in the number of personal and small business bankruptcies;
- Decline in economic activity (and related multiplier effect) resulting from loss of expenditures on inputs of production, payroll and brand promotion; and
- Loss of an industry that has the potential to be a growing source of net exports.

Appendix



THE WALL STREET JOURNAL

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <http://www.djreprints.com>.
<http://www.wsj.com/articles/SB10130211234522774869404581088451777513530>

BUSINESS

FDA Cloud Hangs Over Vape Shops

New FDA rules are expected to require approval for nearly all liquid nicotine juices and e-cig devices



The FDA is expected to complete rules requiring federal approval for nearly all flavored liquid nicotine juices and e-cig devices sold in vape shops. **PHOTO: ANDREW SPEAR FOR THE WALL STREET JOURNAL**

By **TRIPP MICKLE**

Updated July 7, 2015 8:24 a.m. ET

ATLANTA—Tige Mercer quadrupled his income when he quit audiovisual freelancing to open Vape Atlanta, in this city's funky Little Five Points area. He expects his income to rise another 50% after he opens two more e-cigarette stores in nearby cities this summer.

But federal regulations due to be unveiled this summer threaten to ruin his plans.

Within the next two months, the Food and Drug Administration is expected to complete rules that would require federal approval for nearly all flavored liquid nicotine juices and e-cig devices sold in vape shops like Mr. Mercer's.

The approval process could cost anywhere from \$2 million to \$10 million to collect data and put forward an application for each item, according to the regulatory consulting company SciLucent LLC.

It's a price tag Mr. Mercer, who co-owns a liquid-nicotine producer, could never afford. If that happens, he would exit that part of the business, which accounts for about 40% of revenue, and buy more expensive nicotine from an outside supplier. He probably wouldn't be able to afford the planned expansion.



"It's hard to make moves under this hovering cloud said Mr. Mercer as a white cloud of cotton-candy smelling vapor billowed around him. "Worst-case

scenario for me, I fire all my employees, go back to one shop and work myself."

Mr. Mercer would be one of the luckier vape-shop owners, according to the Smoke-Free Alternatives Trade Association, a lobbying group representing vapor shops and manufacturers. After the FDA finalizes its rule, the association estimates that 99% of the industry will go out of business.

"We call it vapocalypse," said Daniel Walsh, chief executive of PureBacco USA LLC, a Gaylord, Mich.-based maker of a liquid nicotine called Flavorz.

In April 2014, the FDA proposed rules that would require e-cigarettes, including liquid nicotine and devices, to be approved by the agency. That would be a challenge, e-cigarette manufacturers say, because the FDA has never approved a new tobacco

Companies would have six months after the FDA completes its rules to register products and ingredients with the agency, and two years to complete the process of seeking approval—which they may or may not get.

The regulations are expected to cut the supply of liquid nicotine and drive up costs for shop owners and prices for vapers. The big winners likely will be Big Tobacco.

Companies like Altria Group Inc. and Reynolds American Inc., which have their own cigarette brands, are better able to afford the approval process, said Kevin Altman, a consultant to the Council of Independent Tobacco Manufacturers of America.



Vape shop owner Cheryl Richter, who smoked for 32 years, opened Vape Den last year in Port Chester, N.Y. PHOTO: ANDREW SPEAR FOR THE WALL STREET JOURNAL

Meanwhile, small vape businesses fret. "I can't think of a manufacturer or a retailer it doesn't keep up at night," said Schell Hammel, a former smoker and hospital administrator who opened her first vape shop in McKinney, Texas, in 2011.

The FDA's proposal has made Ms. Hammel's plans to open more shops an "internal struggle." She has negotiated leases that allow her to close her seven shops if new government rules damage business. She worries FDA rules would bring an end to the shops' line of liquid-nicotine brands, which she recently spent more than \$45,000 to test. But she plans to operate as long as she can.

"I'm not going to leave the business for financial reasons," Ms. Hammel said. "That makes me crazy, I know."

Some of the fiercest advocates of e-cigarettes are those like Ms. Hammel, who used them to kick a 24-year smoking habit. Researchers agree e-cigarettes are less harmful than traditional cigarettes, which release more than 60 carcinogens through combustion, and some studies have shown they can be effective in helping smokers quit.

But e-cigarettes, which arrived in the U.S. around 2008, are so new that their long-term effects remain unknown. Health officials, antitobacco groups and lawmakers have grown concerned about them because cases of nicotine poisoning in children from e-cigarette products have increased, and the Centers for Disease Control and Prevention released a study in April indicating teen e-cigarette use tripled in 2014. Health officials and antitobacco groups are concerned e-cigarettes could become a gateway to

traditional cigarettes.

The FDA said in a statement that the new rules will help it "learn more about these products and ultimately ensure that newly regulated products cause no worse harm to users." The agency added that it plans to provide small businesses time to comply with a final rule.

Not everyone in the vapor industry opposes regulation. Vapeology L.A. owner John Hartigan, 54, said the absence of regulation today puts the onus on him to ensure the liquid nicotine he sells comes from manufacturers blending in controlled environments and doing chemical analysis. "The idea that you won't have people out there putting juice together without a chemistry background is a good thing," Mr. Hartigan said.

In the absence of regulation, more than 8,500 vape shops have sprung up in strip malls and stand-alone stores across the country.

Many have become places where former smokers congregate, learn about new devices and try different juices. The clientele ranges from tattooed millennials like Jeff Eldred, 34, a property maintenance worker from Wylie, Texas, to Jerry Davis, 53, a small-business owner in Atlanta.

Mr. Davis was dressed in a golf shirt and khaki shorts last month when he stopped by Vape Atlanta to sample a variety of liquid nicotine flavors like Fruit Loop-cereal inspired "Tucan Slam." He said he has kicked his three-pack-a-day cigarette habit and estimated he is saving \$8,000 a year in health insurance because he stopped smoking.

Vape shop owner Cheryl Richter, who smoked for 32 years, said helping people like Mr. Davis is why she opened Vape Den last year in Port Chester, N.Y. About 70% of the shop's business comes from its liquid nicotine juices. If FDA rules force her to close the shop, she said she would return to her life as an advertising copywriter or the acting career she once pursued.

"It's really a matter of just how crazy they will make it for this industry to exist," Ms. Richter said.

Some liquid nicotine manufacturers are investing in the research tools necessary to apply for FDA approval.

Mr. Walsh, the CEO of PureBacco, estimated it sank \$500,000 over the past year into

upgraded manufacturing facilities and analytics equipment for his Flavorz juice brand. Five Pawns Inc., a California-based liquid-nicotine company, hired a half-dozen advisers to assist with regulatory, scientific, manufacturing and legal issues related to regulation.

"It's going to become very expensive to play in the game," said Five Pawns Chief Executive Rodney Jerabek. "This could mean the end for a lot of small companies."

Write to Tripp Mickle at Tripp.Mickle@wsj.com

Copyright 2014 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our Subscriber Agreement and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com.